In the Drawings:

None

REMARKS

This amendment is in response to the Examiner's Office Action dated 11/29/2004. Claims 2-4, 13-15, and 24-26 have been cancelled via the current amendment. Claim 1 has been amended without adding new matter. Support for amended claim 1 can be found in previously presented claims 1-4 and figure 2 (and accompanying description) of the application-as-filed. Claim 12 has been amended without adding new matter. Support for amended claim 12 can be found in previously presented claims 12-15 and figure 2 (and accompanying description) of the application-as-filed. Claim 23 has been amended without adding new matter. Support for amended claim 23 can be found in previously presented claims 23-26 and figure 2 (and accompanying description) of the application-as-filed. Minor amendments have been made to claims 10 and 21 to correct dependency issues (that arose out of the cancelled claims). Reconsideration of this application is respectfully requested in view of the foregoing amendment and the remarks that follow.

STATUS OF CLAIMS

Claims 2-4, 13-15, and 24-26 have been cancelled via the current amendment.

Claims 1, 5-12, 16-23, and 27-33 are pending.

Claims 1, 5-12, 16-23, and 27-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Callon et al. (USP 5,251,205) in view of Perlman et al. (USP 6,094,525).

Claims 1, 12, and 23 have been amended without adding new matter.

OVERVIEW OF CLAIMED INVENTION

The presently claimed invention provides for a routing information mapping device comprising a transmitting unit, a receiving unit, a tree generation unit, a judgment unit, an

outside network information acquisition unit, and a mapping unit. The transmitting unit transmits Open Shortest Path First packets with information in the options field of the packets about whether a self-device belongs to a connection-oriented network. The receiving unit extracts information about whether another device from which a packet is received belongs to the connection-oriented network and information about a configuration of a network from the device. The tree generation unit generates a routing tree of a network that clearly indicates a device belonging to the connection-oriented network, based on the information extracted by the receiving unit. The judgment unit judges whether the self-device is an edge device of the connection-oriented network, based on the routing tree of the network. The outside network information acquisition unit obtaining information about an outside network connected to the connection-oriented network from both the routing tree and information about the edge device of the connection-oriented network. The mapping unit generates a table for relating routing information of the connection-oriented network to routing information of the outside network connected to the self-device if the self-device is the edge device.

The presently claimed invention also provides for a routing information mapping method (and a storage medium for enabling a processor to execute the following steps) comprising the steps of: (a) transmitting an Open Shortest Path First packet with information in the options field of the packet about whether a self-device belongs to a connection-oriented network; (b) extracting both information about whether another device from which a packet is received belongs to the connection-oriented network and information about a configuration of a network from the other device; (c) generating a routing tree of the network that clearly indicates a device belonging to the connection-oriented network, based on the information extracted in step (b); (d) judging whether the self-device is an edge device of the connection-oriented network, based on

the routing tree of the network; (e) obtaining information about an outside network connected to the connection-oriented network from both the routing tree and information about the edge device of the connection-oriented network; and (f) generating a table for relating routing information of the connection-oriented network to routing information of the outside network connected to the self-device if the self-device is the edge device.

When the outside network is a connectionless network and if the packet is inputted to the self-device from the outside network the above-mentioned table has a blank entry in the field of input connection identifier. If the packet is outputted from the self-device to the outside network, the above-mentioned table has a blank entry in a field of output connection identifier.

In the Claims

Claims 2-4, 13-15, and 24-26 have been cancelled via the current amendment. As mentioned in the 'Remarks' section Claims 1, 12, and 23 has been amended without adding new matter. Support for amended claims 1, 12, and 23 can be found in previously presented claims 1-4, 12-15 and 23-26, respectively, and figure 2 (and accompanying description) of the application-as-filed.

REJECTIONS UNDER 35 U.S.C. § 103(a)

Claims 1, 5-12, 16-23, and 27-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Callon et al. (USP 5,251,205) in view of Perlman et al. (USP 6,094,525). Rejections with respect to claims 2-4, 13-15, and 24-26 are considered moot in view of their cancellation via the current amendment. To be properly rejected under U.S.C. §103(a), each and

every element of the claims must be addressed through known prior art or be recognized as an obvious variation thereof. Applicants contend that the combination of the Callon and Perlman references fail to provide many of the limitations of applicants' pending claims.

Callon et al. teach a method of calculating routes for sending user data packets via information handling devices which forward data packets through a communications network, wherein the method comprises the steps of including, in at least a first and a second user data packet, destination address information conforming to two or more different addressing conventions of two or more different independent protocol suites, and determining routes for the first and said second user data packets using a route calculation algorithm corresponding to a single routing protocol (chosen from an arbitrary protocol suite) regardless of the addressing convention to which the destination address information in the user data packet conforms. The route is determined using the destination address information in the user data packets without converting the destination address information from the addressing convention to which it forms to another addressing convention. It should be noted that the Callon et al. reference teaches routing being performed within connectionless networks.

Perlman et al. teach a network layer header for expanding the address space of a node coupled to a computer network having a plurality of domains interconnected by inter-domain routers, wherein the header forms a part of a packet and contains address fields for storing hierarchical destination address elements that identify a destination node for receiving the packet. Perlman et al. teach a header comprising a special destination address that uniquely identifies the interdomain routers, with the special destination address replacing an actual destination address in the destination address elements, and a special value that indicates provision of expanded

header fields appended to the address fields, the special value being placed in one of a version field and a type field of the network layer header.

With respect to the "judging" limitation of claims 1, 12, and 23, the examiner states on pages 3, 5, and 7 of the office action of 11/29/2004 that column 1, lines 51-65 of the Callon reference teaches the judging of whether a self device is an edge device of the connection oriented network based on a routing tree of the network. A closer reading of the citations, however, teaches otherwise. Specifically, column 1, lines 51-65 of the Callon reference cites an IEEE article that teaches a router determining which end systems are attached to it using a link state packet. As mentioned earlier, the Callon et al. reference teaches routing being performed within *connectionless networks*. Conspicuously absent in the examiner's citation, or the entire Callon reference, is a teaching or suggestion for an edge device in a connection-oriented network.

With respect to the "obtaining information about an outside network connected to the connection-oriented network" limitation of claims 1, 12, and 23, the examiner asserts on pages 3, 5, and 7 of the office action of 11/29/2004 that column 13, lines 14-19, column 8, lines 49-57, and figures 4a-b of the Callon reference teaches such a limitation. A closer reading of the citations, however, teaches otherwise. Specifically, column 8, lines 49-57 teach routing between "smaller networks 90" that are "partitions" of a "larger network", limitations that are irrelevant to claims 1, 12, and 23. Furthermore, column 13, lines 14-19 continue along the same lines to teach a router seeking a network map (of the hierarchical larger network) to determine the "best" path for routing, limitations that are not relevant to claims 1, 12, and 23. Figures 4a-b continue the same discussion in relation to a "routing tree". Applicants assert that there is no explicit or implicit mention in these citations, or in the entire Callon reference, of an outside network

connected to a connection-oriented network. Applicants further assert that there is neither an explicit mention nor an implicit mention in the citations, or the entire Callon reference, of obtaining information about an outside network connected to the connection-oriented network from both the routing tree and information about the edge device of the connection-oriented network.

With respect to the "table" limitation of claims 1, 12, and 23, the examiner asserts on pages 3, 5, and 7 of the office action of 11/29/2004 that column 13, lines 14-19, column1, lines 40-50, and figures 4a-b of the Callon reference teach the limitation of "generating a table for relating routing information of the connection-oriented network to routing information of the outside network connected to the self-device if the self-device is the edge device." A closer reading of the citations and the entire Callon reference teaches otherwise. As mentioned earlier, column 13, lines 14-19 of the Callon reference teach a router seeking a network map (of the hierarchical larger network) to determine the "best" path for routing, limitations that are not relevant to claims 1, 12, and 23. Figures 4a-b continue the same discussion in relation to a "routing tree". Further, column 1, lines 40-50 of the Callon reference discusses routers and routing algorithms in general. Applicants fail to see a teaching or suggestion in the citations, or in the entire Callon reference, for a table for relating routing information of the connection-oriented network to routing information of the outside network connected to a self-device if the self-device is the edge device.

Although the Perlman reference was used in addressing the limitations of using an optional field, applicants wish to state for the record that the Perlman reference fails to remedy the above-mentioned shortcomings of the Callon reference.

Applicants wish to state that the arguments presented above with respect to independent claims 1, 12, and 23 substantially apply to dependent claims 5-11, 16-22, and 27-33, as they inherit the limitations of the claim from which they depend.

In light of the above-presented arguments, it is seen that the Callon or Perlman reference fails to at least teach the limitations of: (a) routing between a connection-oriented network and a connectionless network, (b) judging whether the self-device is an edge device of the connection-oriented network based on the routing tree of the network, (c) obtaining information about an outside network connected to the connection-oriented network from both the routing tree and information about the edge device of the connection-oriented network, and (d) generating a table for relating routing information of the connection-oriented network to routing information of the outside network connected to the self-device if the self-device is the edge device. Hence, applicants respectfully request the examiner to withdraw the 35 U.S.C. §103 rejection.

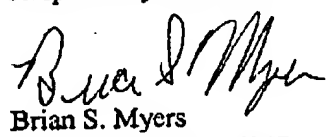
SUMMARY

As has been detailed above, none of the references, cited or applied, provide for the specific claimed details of applicant's presently claimed invention, nor renders them obvious. It is believed that this case is in condition for allowance and reconsideration thereof and early issuance is respectfully requested.

This Amendment is being filed with a Petition for Extension of Time. The Commissioner is hereby authorized to charge the petition fee, as well as any deficiencies in the fees provided to Deposit Account No. 50-1290.

If it is felt that an interview would expedite prosecution of this application, please do not hesitate to contact applicant's representative at the below number.

Respectfully submitted,



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